Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims:

1-17. (Canceled)

18. (Currently Amended) A playback system for playing audio data from a storage device, the audio data containing an access unit, the playback system comprising:

a system circuit for determining a number of substreams present in the access unit;

a depacketizer circuit coupled to the system circuit for depacketizing the access unit; and

a decoder core,

wherein the depacketized access unit is transmitted directly to the decoder core without accessing an external memory device for buffering,

the decoder core decodes the depacketized access unit for a first substream of the access unit if the number of the substreams is more than one, and

the decoder core decodes the depacketized access unit for a second substream of the access unit after the first substream is decoded if the number of the substreams is more than one.

19. (Previously Presented) The playback system of claim 18, wherein the storage device is of DVD-Audio format.

20. (Previously Presented) The playback system of claim 19, wherein the decoder decodes the first substream in part by extracting a restart header for determining timing for decoding the second substream.

21. (Previously Presented) The playback system of claim 20, wherein the decoder decodes the first substream and the the second substream using Meridian Lossless Packing ® (MLP) decoding.

22. (Previously Presented) The playback system of claim 19, wherein the depacketizer performs depacketizing comprising:

reading a major sync;

reading a minor sync; and

reading a substream directory so as to determine the number of the substreams present in the access unit.

23. (Previously Presented) The playback system of claim 22, wherein the depacketizer and the decoder core are implemented in a digital signal processor.